

CLAIMS

1. An anti-microbial composition for use on the outer
surface of the human body or on apparel worn in close
proximity thereto comprising a carrier material and a
salt of a transition metal chelator comprising a
transition metal chelator anion and an organic cation,
characterised in that the cation comprises a protonated
or quaternised amine, other than triisopropanolamine,
containing 0 to 3 hydroxyl groups per N-substituent and
at least one N-substituent comprising a C₁-C₁₀ terminal
hydrocarbyl group.
2. An anti-microbial composition according to claim 1,
comprising a solution in an organic solvent of the
transition metal chelator salt.
3. An anti-microbial composition according to claim 1 or
2, that is a deodorant composition for use on the human
body or in close proximity thereto.
4. An anti-microbial composition according to any of the
preceding claims, characterised in that the cation of
the chelator salt is a protonated amine.
5. An anti-microbial composition according to claim 4,
characterised in that the cation of the chelator salt
is protonated 2-amino-2-methyl-1-propanol,
cyclohexylamine, diisopropanolamine, or 2-aminobutan-1-
ol.
6. An anti-microbial composition according to any of the
preceding claims, characterised in that the organic

cation is present at a level sufficient to neutralise at least 60% of any acid groups on the acid form of the chelator anion.

- 5 7. An anti-microbial composition according to any of the preceding claims, characterised in that the organic cation is present at a level sufficient to lead to an aqueous solution of the chelator salt having a pH of between 6 and 8 (at a molar concentration of chelator salt equal to that present in the composition).
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5. 8. An anti-microbial composition according to any of the preceding claims, characterised in that the anion of the transition metal chelator salt has affinity for iron (III).
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6. 9. An anti-microbial composition according to claim 8, characterised in that the anion of the transition metal chelator salt has a binding coefficient for iron (III) of greater than 10^{26} .
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7. 10. An anti-microbial composition according to any of the preceding claims, characterised in that the transition metal chelator salt is a polyaminocarboxylic acid salt.
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11. An anti-microbial composition according to any of the preceding claims, characterised in that the anion of the transition metal chelator salt has an acid form comprising at least five acid groups.
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12. An anti-microbial composition according to claim 10, characterised in that the transition metal chelator salt is a diethylenetriaminepentaacetic acid salt.
- 5 13. An anti-microbial composition according to any of the preceding claims, characterised in that less than 50% by weight of water is present in the composition, excluding any volatile propellant that may be present.
- 10 14. An anti-microbial composition according to claim 13, characterised in that the ratio of other liquid components to water is greater than 65:35 by weight.
- 15 15. An anti-microbial composition according to any of the preceding claims, characterised in that the chelator salt is present at a concentration of 0.01% to 10% by weight, excluding any volatile propellant present.
- 20 16. An anti-microbial composition according to any of the preceding claims, which is in the form of an aerosol composition comprising a volatile propellant.
- 25 17. An anti-microbial aerosol composition according to claim 16, comprising an organic solvent of c.logP less than 2 and a non-chlorinated volatile propellant, said composition being a homogeneous pressurised solution.
- 30 18. An anti-microbial composition according to any of the preceding claims, comprising an additional anti-microbial agent.

19. An anti-microbial composition according to claim 18, characterised in that the additional anti-microbial agent is a cationic bactericide.
- 5 20. An anti-microbial composition according to claim 19, characterised in that the additional anti-microbial agent is an organic cationic bactericide.
- 10 21. An anti-microbial composition according to any of the preceding claims, comprising fragrance material at up to 4% by weight of the composition.
- 15 22. A method of controlling microbial numbers on the outer surface of the human body or on apparel worn in close proximity thereto, said method comprising the application to the outer surface of the human body or to apparel worn in close proximity thereto of an anti-microbial composition according to any of the preceding claims.
- 20 23. A cosmetic method of inhibiting the generation of human body odour, said method comprising the application to the outer surface of the human body or to apparel worn in close proximity thereto of an anti-microbial composition according to any of the claims 1 to 21.
- 25 24. A cosmetic method of delivering enhanced fragrance intensity comprising the topical application to the outer surface of the human body or to apparel worn in close proximity thereto of a composition according to claim 21.
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25. A method according to any of claims 22 to 24 in which,
in a preceding step, the outer surface of the human
body or apparel worn in close proximity thereto is
washed and/or in a preceding or simultaneous step is
5 contacted with an anti-microbial agent thereby lowering
the viable microbial population.
26. A method for the manufacture of an anti-microbial
composition, said method comprising the formation of a
10 solution in an organic solvent of a transition metal
chelator salt according to claim 2.
27. A method for the manufacture of an anti-microbial
composition according to claim 26, comprising the
15 addition of an acidic chelator and an amine to water to
form an aqueous solution, followed by dilution with an
alcohol to form an aqueous alcohol solution, optionally
followed by pressurisation with a liquified volatile
propellant.
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